

## OIB - C-130H Hercules #439 05/08/15 Science Report

**Aircraft:**

[C-130H Hercules #439](#) ([See full schedule](#))

**Date:**

Friday, May 8, 2015

**Mission:**

OIB

**Mission Location:**

Thule, Greenland

**Mission Summary:**

Mission: Sea Ice - Zigzag West (priority: high/medium)

This mission is a modified version of the similar Zigzag West flight flown in prior years. It is intended to sample the thick multi-year ice near the Ellesmere coast as well as the gradient to thinner ice closer to the pole. We substituted CryoSat-2 ascending track #26934 for the easternmost leg of this flightline, and we were on the line when the spacecraft passed overhead at 12:23:34z. In addition to Level 1 Requirements SI1 and SI2, the mission addresses sea ice level 1 baseline requirement SI3b by sampling thick multi-year ice near the northern coast of Ellesmere Island and the poleward gradient towards thinner ice.

Weather over most of northern Greenland was again poor today, with low pressure and clouds still influencing the west, and low clouds and coastal fog over much of the north and east. Meanwhile the widespread fog that had been in place over almost the entire Arctic Basin for more than a week parted somewhat over the last two days. Much of the Canada Basin was clear, but the southern portion, including the area selected for a SARAL spacecraft underflight today, was still mostly under a widespread fog bank. We instead selected the Lincoln Sea and northern Canada Basin for a mission, which the morning satellite images showed to be mostly fog-free, with some high clouds overhead. We encountered several small and isolated fog banks, but successfully collected data for more than 90% of the route.

All instruments performed normally today.

We conducted a ramp overflight at 4000' AGL.

**Data volumes:**

ATM: 19 Gb

CAMBOT: 79 Gb

DMS: 113 Gb

Ku-Band Radar: 105 Gb

MCoRDS: 829 Gb

Narrow Swath ATM: 35 Gb

NSERC Onboard Data: TBD

Snow Radar: 105 Gb

total data collection time: 4.3 hrs

**Images:**

### Map of Sea Ice - Zigzag West



[Read more](#)

### Weather satellite image from this morning



[Read more](#)

## Fogbank off Ellesmere Island



[Read more](#)

### Submitted by:

John Sonntag on 05/08/15

### Related Flight Report:

## C-130H Hercules #439 05/08/15

### Flight Number:

Zigzag West

### Payload Configuration:

OIB

### Nav Data Collected:

No

### Total Flight Time:

7.2 hours

### Submitted by:

Luci Crittenden on 05/08/15

### Flight Segments:

<b>From:</b>	BGTL	<b>To:</b>	BGTL
<b>Start:</b>	05/08/15 10:50 Z	<b>Finish:</b>	05/08/15 18:00 Z
<b>Flight Time:</b>	7.2 hours		
<b>Log Number:</b>	<a href="#">151002</a>	<b>PI:</b>	Michael Studinger
<b>Funding Source:</b>	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
<b>Purpose of Flight:</b>	Science		
<b>Comments:</b>	Zigzag West (modified from previous years)mission completed today. No fly day tomorrow (Saturday) due to runway closure. Sunday is a hard down day for crew rest. Next flight planned for Monday, May 11.		

### Flight Hour Summary:

	<b>151002</b>
<b>Flight Hours Approved in SOFRS</b>	334.4
<b>Total Used</b>	297.6
<b>Total Remaining</b>	36.8

### 151002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
<a href="#">03/12/15</a>	ATF	Check	1.5	1.5	332.9
<a href="#">03/13/15</a>	PTF - GPS	Check	2	3.5	330.9
<a href="#">03/13/15</a>	PTF - Radar #1	Check	0.8	4.3	330.1

<a href="#">03/13/15 - 03/14/15</a>	PTF - Radar #2	Check	4.5	8.8	325.6
<a href="#">03/16/15</a>	PTF - Radar #3	Check	2.4	11.2	323.2
<a href="#">03/17/15</a>	Transit	Transit	7.8	19	315.4
<a href="#">03/19/15</a>	Nansen Gap	Science	7.4	26.4	308
<a href="#">03/24/15</a>	Sea Ice - Zigzag East	Science	8.2	34.6	299.8
<a href="#">03/25/15</a>	Sea Ice North Pole Transect ? Thule	Science	8.2	42.8	291.6
<a href="#">03/26/15</a>	Sea Ice - Laxon Line	Science	9.2	52	282.4
<a href="#">03/27/15 - 03/28/15</a>	Sea Ice - East Beaufort Sea	Science	8.2	60.2	274.2
<a href="#">03/29/15 - 03/30/15</a>	Sea Ice - North Beaufort Loop	Science	8.9	69.1	265.3
<a href="#">03/30/15 - 03/31/15</a>	Sea Ice - SIZRS Zigzag	Science	8.1	77.2	257.2
<a href="#">04/01/15</a>	Sea Ice - South Basin Transect	Science	8.8	86	248.4
<a href="#">04/03/15</a>	Sea Ice - South Canada Basin	Science	7.4	93.4	241
<a href="#">04/06/15</a>	OIB Transit from BGTL-BGSF	Transit	3.3	96.7	237.7
<a href="#">04/08/15</a>	Helheim-Kangerdlussuag	Science	8	104.7	229.7
<a href="#">04/09/15</a>	K-EGIG Summit	Science	8.3	113	221.4
<a href="#">04/10/15</a>	Southeast Glaciers 01	Science	8	121	213.4
<a href="#">04/11/15</a>	East Glaciers 01	Science	8	129	205.4
<a href="#">04/13/15</a>	Southeast Coastal	Science	7.7	136.7	197.7
<a href="#">04/14/15</a>	Helheim-Kangerdlussuag Gap B	Science	7.9	144.6	189.8
<a href="#">04/17/15</a>	Umanaq B	Science	7.5	152.1	182.3
<a href="#">04/18/15</a>	Southwest Coast A	Science	8.1	160.2	174.2
<a href="#">04/20/15</a>	Penny 01	Science	6.3	166.5	167.9
<a href="#">04/21/15</a>	Thomas-Jakobshaven 01	Science	8.7	175.2	159.2
<a href="#">04/22/15</a>	Southeast Flank 01	Science	7.6	182.8	151.6
<a href="#">04/23/15</a>	Jakobshavn-Eqip-Store	Science	9.2	192	142.4
<a href="#">04/24/15</a>	Geikie 02	Science	8.3	200.3	134.1
<a href="#">04/25/15</a>	Jakobshaven 02/ Mop Up	Science	6.9	207.2	127.2
<a href="#">04/27/15</a>	Southwest Coastal B	Science	8	215.2	119.2
<a href="#">04/28/15</a>	Southeast Glaciers 02	Science	7	222.2	112.2
<a href="#">04/29/15</a>	TRANSIT BGSF-BGTL	Transit	2.5	224.7	109.7
<a href="#">04/30/15</a>	ATM Laser Repair Checkout	Science	2.3	227	107.4
<a href="#">05/01/15</a>	NW Coastal A	Science	7.2	234.2	100.2
<a href="#">05/05/15</a>	IceSat-2 North / CryoSat-2 SARIn	Science	8.2	242.4	92
<a href="#">05/06/15</a>	North Glaciers 01	Science	8.2	250.6	83.8
<a href="#">05/07/15</a>	Devon-Barnes 01	Science	7.8	258.4	76
<a href="#">05/08/15</a>	Zigzag West	Science	7.2	265.6	68.8
<a href="#">05/11/15</a>	Northwest Glaciers 01	Science	7.8	273.4	61
<a href="#">05/12/15</a>	North-Central Gap 02	Science	8.1	281.5	52.9
<a href="#">05/15/15</a>	North-Central Gap 01	Science	7.3	288.8	45.6
<a href="#">05/21/15</a>	Transit - Thule to Bangor, ME	Transit	6.5	295.3	39.1
<a href="#">05/22/15</a>	Transit - Bangor, ME to WFF	Transit	2.3	297.6	36.8

*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

## [NASA Home](#)

Page Last Updated: April 22,  
2017

Page Editor: Erin Justice

NASA Official: Bruce A.  
Tagg

- [Budgets, Strategic Plans  
and Accountability  
Reports](#)
- [Equal Employment  
Opportunity Data  
Posted Pursuant to the  
No Fear Act](#)
- [Information-  
Dissemination Policies  
and Inventories](#)
  
- [Freedom of Information  
Act](#)
- [Privacy Policy &  
Important Notices](#)
- [NASA Advisory  
Council](#)
- [Inspector General  
Hotline](#)
- [Office of the Inspector  
General](#)
- [NASA  
Communications Policy](#)
  
- [Contact NASA](#)
- [Site Map](#)
- [USA.gov](#)
- [Open Government at  
NASA](#)

---

**Source URL:** [https://airbornescience.nasa.gov/science\\_reports/OIB\\_-\\_C-130H\\_Hercules\\_439\\_05\\_08\\_15\\_Science\\_Report](https://airbornescience.nasa.gov/science_reports/OIB_-_C-130H_Hercules_439_05_08_15_Science_Report)